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The Fisheries of Senegal, 1975-76

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ABSTRACT

The Senegalese fishing industry is one of the largest and most developed fisheries in West Africa. Fisheries is second only to peanuts as the most important sector of the economy. An active government development policy, partly financed by a Canadian loan, has promoted the modernization of the Senegalese fishing industry and has contributed to an almost steadily rising catch. The rapid progress of the early 1970s has begun to slow down in recent years, due to labor unrest and the failure of the industry to replace aging vessels. The value of exports of fishery products continues to rise, however, earning over $40 million in 1975. Major exports are tuna, sardinella, shrimp, and fish meal, sold primarily to France and the Ivory Coast. Senegal recently declared a 200-mile economic zone and has signed several fishery agreements permitting other countries to fish within the zone on the condition that these countries aid in Senegal's fishery development program.

All values in this report are in U.S. dollars ($).

I. INTRODUCTION

The 700-kilometer (km) coastline of the Republic of Senegal borders on waters that, because of seasonal coastal upwelling, have some of West Africa's richest fishery stocks. Senegal has traditionally been a fishing nation. Its 46,000 fishermen provide the major source of protein for most of Senegal's population. The annual per capita fish consumption is over 40 kilograms (kg), among the highest in Africa. Almost all the fish consumed is processed locally. The fishing industry is also an important source of foreign exchange that the government encourages with a dynamic export policy. Fisheries have rapidly developed during the past 5 years, primarily by motorizing the traditional dug-out canoes, called "pirogues" by local fishermen. A Canadian loan under the 1972 Senegal-Canadian fisheries agreement largely funded this program. The Senegalese Government has also encouraged and aided in modernizing the industry by building fishing piers and cold storage plants. As a result, landings have more than doubled since 1969, and fisheries are second only to peanuts as the most important sector of the economy.

II. SPECIES

The main species caught in Senegalese waters is sardinella, comprising 28 percent of the 1974 and 1975 catches. Various bottom fish, particularly groupers, West African croakers, and sea breams, as well as pelagic species such as mullets, jacks, and yellowfin and bigeye tuna, are also landed in large amounts. A shrimp fishery has developed in the estuary of the Casamance River, and small amounts of spiny lobster are also caught.1/

1/For a detailed report on the lobster fishery of Senegal, order report Number DIB-77-037 for $4.00 from NTIS, U.S. Department of Commerce, Springfield, VA 22161

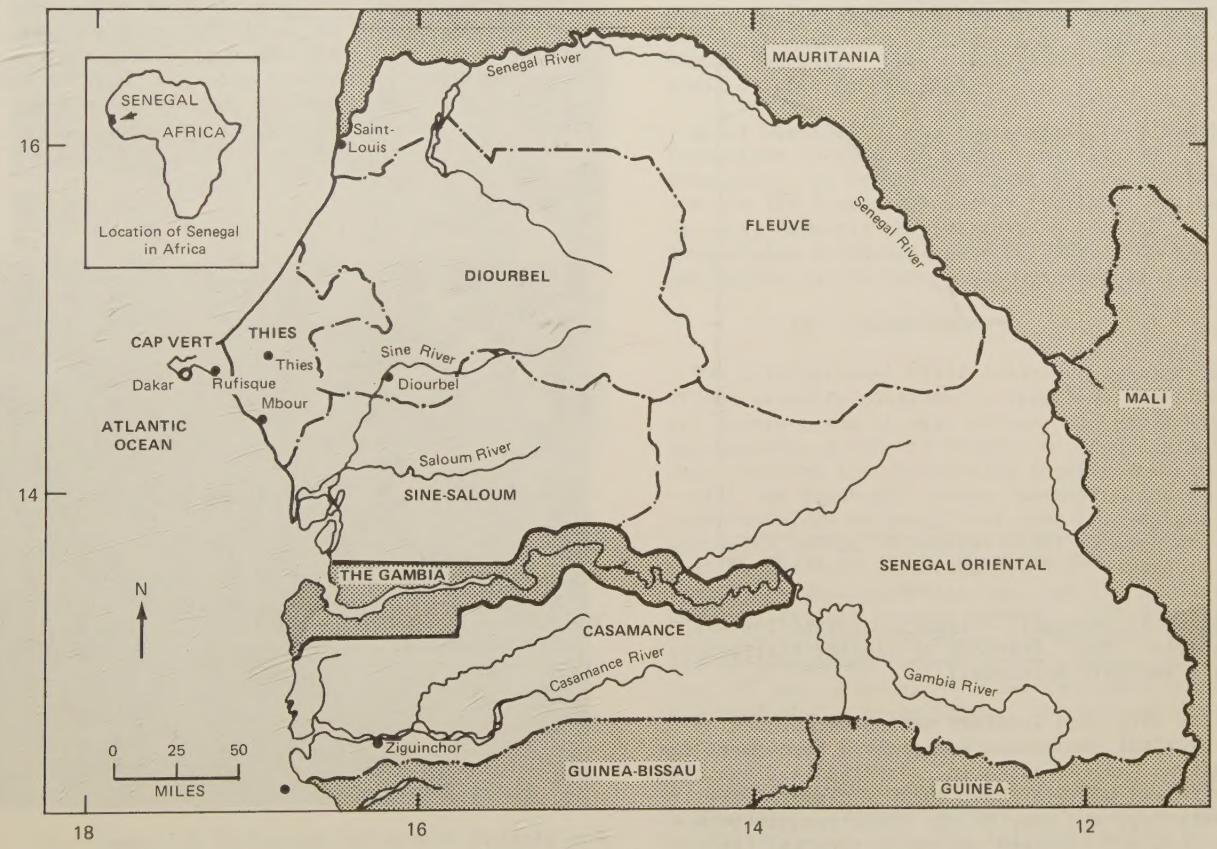

Figure 1.--Map of Senegal, indicating regions and principal cities.

III. CATCH

Senegal's fisheries catch in 1975 was 362,000 metric tons (t), only a slight increase over the 1974 catch of 357,000 t. The 1974 catch, however, was 14 percent greater than in 1973, reflecting the results of the pirogue motorization and the introduction of new fishing gear, especially seines. Preliminary figures for 1976 of 351,000 t indicate a catch decline, principally owing to decreasing commercial catches (table 1).

Table 1.--Senegal. Fisheries catch, 1967-76

Year	Quantity 1/
	Metric tons
1967	155.0
1968	174.7
1969	182.1
1970	182.2
1971	239.0
1972	293.6
1973	315.8
1974	357.0
1975	361.7
1976	2/350.9

1/FAO significantly revised its estimates of 1970 to 1974 catches in the 1975 edition of Yearbook of Fishery Statistics.
2/Senegalese Government data (preliminary).

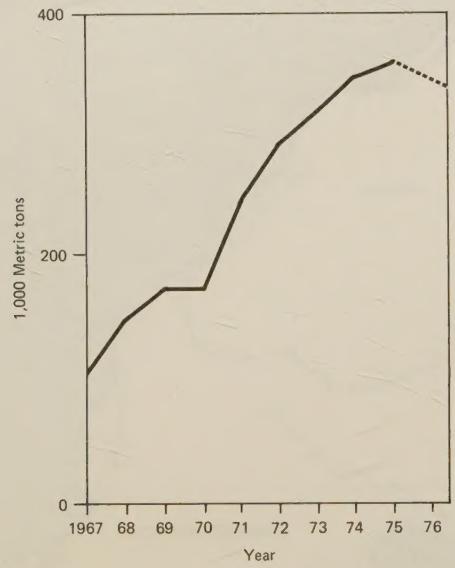

Figure 2.--Senegal. Fisheries catch, 1967-76. (Source: FAO. Yearbook of Fishery Statistics, 1973 and 1975 editions.)

The 1975 tuna landings were poor because of a cyclical phenomenon experienced throughout the Eastern Central Atlantic. Sardine landings also decreased because fewer sardine vessels were operating, and many of the other vessels were too old and required extensive repairs. In addition, numerous strikes paralyzed the fishing industry at a time when fishing was best.

Figure 3.--Many of the vessels in Senegal's commercial fishing fleet have been tied up in port owing to labor unrest. (c) William B. Folsom

A. Artisanal fisheries

Artisanal fishermen dominate Senegalese fisheries, bringing in over 75 percent of the catch. Traditional pirogues catch both pelagic and demersal species along the coast and along the Casamance River in southern Senegal. Most of the artisanal catch is consumed fresh by the population of the localities where it is landed.

Figure 4.--Fishermen dragging a butterfly net along the Senegal River. (c) Philip C. Pierce and Elwood A. Seaman

The Centre d'Assistance à la Motorisation de Pirogues (CAMP), or Pirogue Motorization Center, has been distributing outboard motors since 1972 in an effort to modernize and increase the efficiency of the artisanal fishermen. This project, financed by the Canadian International Development Agency (CIDA), has been quite successful; 67 percent of the pirogues are now motorized. Although the number of pirogues decreased from 6,400 in 1974 to 6,000 in 1975 because of the government's restrictions on cutting trees, the artisanal catch increased from 262,600 t in 1974 to 278,400 t in 1975. Preliminary statistics for the 1976 artisanal catch indicate that only 276,600 t were caught, a slight decrease from the 1975 catch.

Senegal's freshwater catch is about 20,000 t each year. Much inland fishing is on the Senegal River, where, particularly during the flood season (July to November), the fish are abundant and varied. Large beach seines, which are hauled along the river, are most commonly used, but sometimes smaller nets and traps are used. The fishermen consume about half of the freshwater catch and market the rest.

Figure 5.--Fish being dried in the sun along the Senegal River. (c) Philip C. Pierce and Elwood A. Seaman

Catches on the river declined sharply during the Sahel drought, which began in 1969. By late 1975, however, catches had returned to predrought levels. Despite this recovery, the Senegalese Government is concerned about overfishing and has set aside five deep areas of the Senegal River where fishing is prohibited or where restrictions on fishing techniques are enforced.

B. Commercial fisheries

The commercial fishermen use modern vessels and gear; their catch is primarily exported. In the past few years, the commercial catch has decreased. In 1975, the tuna catch declined and the shrimp catch decreased owing to disagreements among the fishermen, buyers, and processing plant operators. In addition, Kuwaiti vessels, which make up about one-fifth of the shrimp fleet, did little fishing

Figure 6.--Part of the Kuwaiti shrimp fleet lying idle in Dakar. (c) William B. Folsom

during 1975. The sardinella catch was also below the 1974 catch because five seiners had become obsolete. Only trawl fishermen increased their catches during 1975.

As of March 1977, the industrial fleet had 11 Senegalese seiners, 90 shrimp vessels (39 Senegalese, 32 French, 19 Kuwaiti), and 42 tuna vessels (16 Senegalese and 26 French). The tuna vessels, formerly the property of Société Sénégalaise d'Armement pour la Pêche (SOSAP), now belong to the Senegalese Government.

IV. PROCESSING

The International Civil Aviation Organization (ICAO) recently published a report on the fishery export trade of West Africa, and under ICAO sponsorship, a team of experts visited Senegal.2/ They observed that processing techniques, especially for fresh and frozen fishery products, were "moderate to good," but that the smaller companies needed to improve plant hygiene and quality control. Freezing and cold storage facilities were underutilized, and ice production was insufficient to meet demand. ICAO experts noted that fishery products are visually inspected in Senegal by factory staff members, but that few, if any, chemical or other technical tests are conducted. Nevertheless, the government has

2/A report on the conclusions of the ICAO study is available. Please request IFR-77/129, "The Possibilities of Expanding African Exports of Fishery Products by Air," from your regional National Marine Fisheries Service Statistics and Market News Office, and enclose a self-addressed mailing label.

facilities for quality control, and has established quality standards for most fishery products.

La Rochelle, Ltd. manufactures packaging materials, including cardboard and waxed cartons, in Senegal. Less expensive packaging materials are available in Las Palmas, Canary Islands, but the Senegalese Government may raise tariff barriers to protect the local packaging industry and to prevent competition from the Las Palmas products.

Transportation of fishery products is generally efficient. Most processing companies own at least one refrigerated truck and can hire additional trucks as needed. Road connections between Dakar and landing centers are good, and transportation to Yof Airport near Dakar is convenient. Cargo handling facilities are of "international standard," and cold storage facilities are available at the airport through SOCOPAO, the largest freight agent in Senegal.

V. COMPANIES

In the past 10 years, Senegal's fishing industry has grown significantly. The number of fishery companies is continually increasing, and those already established are rapidly expanding their processing and cold storage plants. Most of the large processing firms are located in or near Dakar; a few subsidiaries are in Ziguinchor on the Casamance River. These firms process chilled, frozen, dried, and canned fishery products as well as fish meal. Tuna and shrimp are the most important species processed, but a significant sardinella fishery is developing.

In August 1976, Société Sénégalaise d'Armement pour la Pêche (SOSAP), long beset by technical and financial difficulties, went bankrupt. SOSAP, 65 percent government owned, had played a major role in developing the tuna industry. Labor problems and strikes by fishermen contributed to a dramatic decline in the tuna catch, from over 11,000 t in the early 1970s to only 5,900 t in 1975. In addition, at the time of the company's liquidation, only 9 of SOSAP's 25 fishing vessels were operating. Press reports attribute SOSAP's difficulties to Soviet-built tuna purse seiners that were not suitable for Senegalese fishing conditions, thus precluding any chance of profitability.3/ More than 200 people lost their jobs when SOSAP ceased operating.

A. Fishing companies

The largest fishing companies, some of which also engage in fish processing, are Société des Pêcheries Sénégalaises de L'Atlantique (SOPESEA), Société des Produits Alimentaires Congelés (SPAC), and Société de Pêche de L'Afrique Occidentale (SOPAO). SOPESEA owns six shrimp trawlers and a seiner, and its 1975 turnover was over $3 million (651 million CFA francs).4/ The company catches and processes shrimp and fish, especially sole fillets, for export. SPAC owns 20 fishing vessels, including 3 refrigerated trawlers and 7 shrimp trawlers; it catches and processes shrimp, cephalopods, and fish, all of which are frozen for export. SOPAO is a joint venture with Japanese participation, and primarily processes cuttlefish and octopus for export to Japan. Appendix B gives further details on fishing and fish processing companies.

B. Fish processing companies

Most seafood processing companies in Senegal do not operate their own fleet of vessels. The largest fish processing companies are Adripêche, Surgel, and Produits Commerciaux Surgelés (PROCOS). Adripêche had a turnover of $8 million (1.6 billion CFA francs) in 1975, and processes shrimp, cephalopods, and sole fillets for export. Surgel, with a turnover of $4.5 million in 1975 (901 million CFA francs), produces shrimp and several species of frozen fish. PROCOS had a turnover of $3.4 million (678 million CFA francs) in 1975; its products include shrimp, cephalopods, and frozen fish, most of which are exported. All three companies buy fresh fish from fishing companies, but PROCOS plans to expand its operations to include actual fishing.

Figure 7.--Conserveries du Sénégal. (c) William B. Folsom.

The two major tuna processing companies are Conserveries du Senegal (CDS) and Société Africaine des Produits Alimentaries (SAPAL). CDS has a production capacity of 10,000 t of tuna annually and had a turnover of $11 million in 1975. CDS also has a fish meal factory with a daily production capacity of 45 t and the company has recently begun to process

3/West Africa. 1977. The plunder of the seas. June 20, 1977, p. 1215.

4/CFA francs (Communité Française Africaine) are used by the former French colonies in Africa. As of June 1977, the exchange rate was approximately 247 CFA francs to the U.S. dollar.

sardinella. SAPAL, a branch of the French firm Saupiquet, was the largest exporter of canned tuna in 1975. SAPAL has an annual production capacity of 8,000 t and is also beginning to process sardinella. (See appendix B for further details.)

VI. EXPORTS

Senegal exported 30,700 t of fishery products, valued at $41.5 million in 1975; revenues from fishery exports have more than tripled since 1971 when products valued at less than $13 million were exported (table 2). Preliminary Senegalese Government statistics indicate that exports increased by nearly 10 percent, both in quantity and value, in 1976.

Table 2.--Senegal. Fishery exports, by quantity and value, 1971-75

Year	Quantity	Value
	1,000 Metric tons	US$1,000
1971	18.9	12,893
1972	24.7	17,247
1973	30.6	21,728
1974	36.8	30,906
1975	1/30.7	2/41,536
1976	1/34.0	3/46,667

1/Senegal Government statistics.
2/Based on a June 31, 1976 exchange rate of 200.3 CFA francs=$1.00.
3/Based on a June 31, 1976 exchange rate of 236 CFA francs=$1.00.

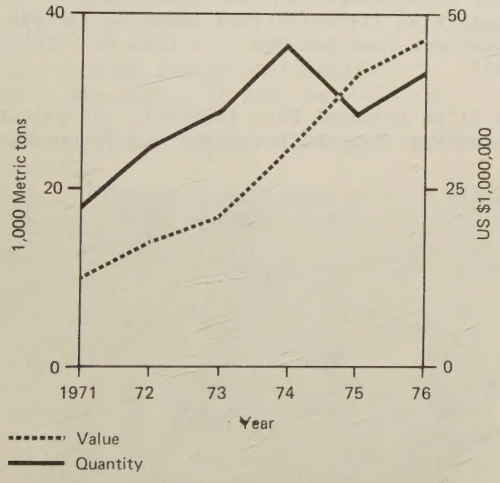

Figure 8.--Senegal. Fishery exports, by quantity and value, 1971-75. (Source: FAO Yearbook of Fishery Statistics, 1975.)

Most of Senegal's production of frozen fish and 95 percent of the production of canned fish are exported; Senegalese consumers prefer dried or smoked fish. The most important export commodities are sardinella, tuna, shrimp, and fish meal. In 1975, over 9,400 t of sardinella were exported, mainly to the Ivory Coast and other African countries. Most of the sardinella was packed in tomato sauce, oil, or a combination of the two. The majority of the tuna and shrimp is exported to European countries, particularly France; tuna exports in 1975 were nearly 8,570 t and shrimp exports were over 7,000 t. Other exports include cuttlefish, sole, and red mullet (appendix C).

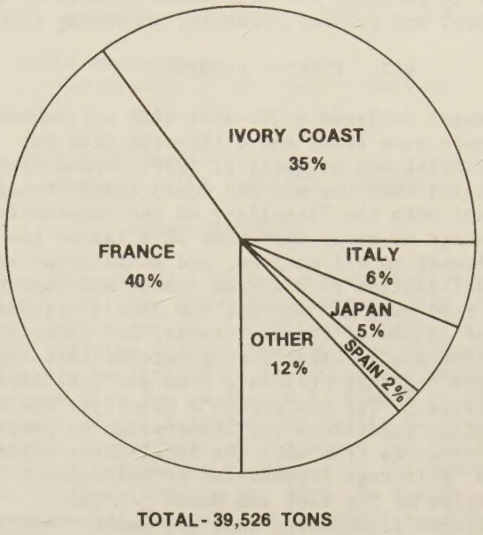

Figure 9.--Fishery exports by destination, 1975.

France is the most important market for Senegalese fishery exports. Although a greater quantity of products is shipped to the Ivory Coast, exports to France valued $20 million more than exports to the Ivory Coast. Shrimp and lobster are exported to France at very high prices, but the Ivory Coast imports mainly lower-priced sardinella. Other major markets are Italy, Japan, and Spain. In 1976, the United States imported 2,923 t of skipjack tuna, valued at $1.9 million. However, this was not reflected in Senegal Government export statistics.

Figure 10.--Fishermen at work. (c) William B. Folsom.

Yugoslavia may also begin importing Senegalese fishery products. This possibility was discussed during a meeting of the joint Senegalese-Yugoslav committee on scientific and technical cooperation in the summer of 1977. The Yugoslavs proposed the export of industrial and manufactured products in exchange for Senegalese exports of agricultural and primary products, including fish.

VII. FOREIGN FISHING

Senegal declared a 200-mile (320 km) exclusive economic zone (EEZ) and a 150-mile (240 km) territorial sea on April 1, 1976. Press reports indicated that the new EEZ would enable Senegal to deal with the "inability of the international community to reach agreement on a law of the sea applicable to all nations, and would organize the utilization of high-sea issues and resources in a fair way."[5/] Senegal has been a regional leader on law of the sea issues, and sponsored a conference in Dakar during October 1976 that brought together officials from six West African countries.[6/] The conference's objective was to establish guidelines for cooperation to protect the resources from what the local press referred to as "pilferage perpetrated by developed countries of the East and West."[7/] The conference recommended that the member countries form a "common front" on law of the sea issues.

In the Cape Verde Coastal Division of the Commission for the East Central Atlantic Fisheries (CECAF) area, which includes the waters off Senegal, The Gambia, Guinea-Bissau, and Guinea (Conakry), Senegal took nearly 65 percent of the reported catch (appendix D). Soviet, Bulgarian, Polish, and other vessels do not always report their catches to CECAF; therefore, this figure is somewhat misleading. Vessels from Spain, Japan, Italy, France, and the Ivory Coast operate in Senegalese waters under bilateral agreements. Poland has also signed an agreement with Senegal that allows Poland to fish in Senegalese waters in exchange for fishery assistance and loans. A few Polish vessels have recently begun fishing in Senegalese waters, and construction is now underway on a fishing port at Saint-Louis.[8/] Senegal's fishery agreements usually require foreign fishermen to train and hire Senegalese fishermen, grant loans for fishery development, land a portion of their catches in Senegal, and pay license fees.

Senegal is acquiring the vessels and aircraft needed to enforce its territorial waters and fishing zone. Senegal already has three patrol vessels built by Fairey Marine of England. According to Italian press reports, in 1972, France made a surveillance plane available to the Senegalese army.[9/] No information is available as to whether the surveillance craft is still in service in Senegal. Canada will reportedly aid Senegal in obtaining additional patrol vessels and aircraft.

VIII. FUTURE PLANS AND OUTLOOK

The Senegalese Government is continuing efforts to develop fisheries. The major problems facing Senegal are a lack of modern fishing vessels and equipment and inadequate processing capacity. The pirogue motorization program was largely responsible for the success of the Fourth National Plan (1972-77) that aimed at increasing landings from 248,000 t in 1972 to 301,000 by 1977.

The Fifth National Plan (1977-81) is primarily concerned with the extension and improvement

Figure 11.--Soviet stern trawler enters a drydock in Dakar for repairs. (c) William B. Folsom

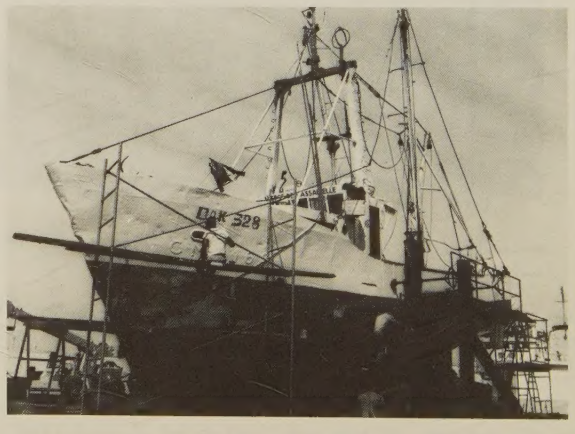

Figure 12.--A Senegalese fishing vessel undergoing repairs. (c) William B. Folsom.

5/Pêche Maritime, April 1976.
6/Cape Verde Islands, The Gambia, Guinea-Bissau, Mali, Mauritania, and Senegal.
7/Le Soleil (Dakar), October 18, 1976.
8/A number of Polish firms, led by NAVIMOR, are building the pier at Saint-Louis. It is expected to be completed by March 1978.
9/Pesca Italiana, March 16, 1972.

of processing facilities and ports to enable the Senegalese fishing industry to accomodate increased landings. The major projects of the current Plan include the construction of ports at Saint-Louis, Ziguinchor, and an unspecified location in the Sine-Saloum Region. Construction is also underway on a new fishing pier in Dakar that will add 1,100 meters (m) of wharves and also provide 10,000 m^2 of space for processing plants and refrigeration facilities. The government is also attempting to replace antiquated vessels and to introduce new fishing methods. The United States recently exported over $10 million worth of tuna vessels and will soon deliver $2.5 million worth of trawlers to Senegalese firms.

France recently agreed to lend $1.1 million for an experimental longline fishery. The project will provide nine modern 13-m vessels capable of staying at sea for up to 8 days. This will allow the fishermen to catch valuable species such as sole and grouper that are not accessible to the artisanal pirogue fishermen who have to operate close to shore. The Senegalese Government thus hopes to preserve the artisanal fishing industry and to continue providing employment while promoting the development of modern commercial fisheries.

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X. ACKNOWLEDGMENTS

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Appendix A.--Senegal. Catch by species, 1971-75

Species	Year				
	1971	1972	1973	1974	1975
	Metric tons				
Freshwater fish[1]	[2]18,000	[2]15,000	12,000	[2]10,000	[2]10,000
Flatfish[1]	2,200	2,900	3,200	3,086	2,092
Groupers	10,700	12,700	13,900	11,527	10,781
Snappers	-	-	-	-	1,320
West African croakers	4,300	18,300	22,500	15,722	18,056
Dentex[1]	10,600	2,100	3,100	1,234	1,655
Sea breams[1]	16,000	17,900	19,100	17,900	18,185
Surmullets (red mullets)	400	500	400	47	802
Barracudas	[3]NA	3,100	7,400	4,102	5,818
Mullets	[3]NA	8,800	12,100	18,476	15,187
Threadfins	[3]NA	500	2,000	2,021	1,543
Bluefish	9,800	8,100	8,800	21,580	9,662
Jack and horse mackerels[1]	5,700	6,500	9,400	9,584	9,842
Jacks, trevallies	8,000	5,800	8,800	8,834	11,777
Round and short-body sardinellas	43,500	80,500	80,500	99,921	96,524
Bonga	20,000	24,400	24,400	26,189	21,410
Skipjack tuna	8,100	7,300	6,300	9,365	4,332
Yellowfin tuna	10,300	9,900	10,400	9,937	8,325
Bigeye tuna	-	-	-	64	-
Various sharks	2,600	4,600	5,900	6,372	6,405
Other marine fish[1]	61,500	55,500	56,400	66,488	91,885
Marine crabs[1]	100	200	200	226	164
European spiny lobsters	100	200	100	358	483
Shrimp and prawns[1]	4,600	5,700	5,300	6,030	5,133
Marine crustaceans[1]	-	-	-	210	61
Portuguese cupped oyster	300	300	400	191	128
Common squids	-	-	-	1,395	2,806
Marine mollusks[1]	2,200	2,800	3,200	6,013	6,915
Sea urchins and sea cucumbers[1]	-	-	-	-	22
Aquatic plants[1]	-	-	-	158	360
Total	[2]239,000	[2]293,600	315,800	357,030	361,673

1/Not otherwise specified.
2/FAO estimate, based on partial information.
3/Not available.
Source: FAO. Yearbook of Fishery Statistics, 1975.

Appendix B.--Senegal. Principal fishing companies, 1975

Name of company	Species	Annual receipts	Miscellaneous
		US$1 million	
Adripêche	Shrimp, sole, cephalopods	8.0	Cold storage of 1,000 t, 50 t/day freezing capacity.
Afric-Azote	Fish meal	1/NA	Italian-owned; has a fish meal plant capable of producing 50 t/day.
CDS (Conserveries du Sénégal)	Tuna, fish meal, sardinella	11.0	Can process 10,000 t annually; capable of producing 45 t of fish meal daily; cans tuna and sardinella in various sauces.
Gulf Fisheries	Shrimp, crustaceans	2.5	Joint venture with United Fisheries Company of Kuwait.
PROCOS (Produits Commerciaux Surgelés)	Shrimp, fish cephalopods	3.4	Storage facility of 300 t; 25 t/day freezing capacity.
SAFCOP (Société Sénégalaise de commercialisation des produits de la mer)	1/ NA	1/ NA	Only involved in marketing and exporting; exports are shipped to the Ivory Coast and Ghana.
SAIB (Société africaine d'industrie du bâtiment)	Tuna, sardinella	1/ NA	Annual production capacity of 3,500 t; produces tuna and sardine in sauces.
SAPAL (Société Sénégalaise des produits alimentaires)	Tuna, sardinella	1/ NA	Affiliated with Saupiquet of France; annual capacity of 8,000 t.
SONAFRIC (Société nationale frigorifique)	1/ NA	1/ NA	Principally a freezing facility; 5,000 t storage capacity; can freeze 40 t/day; produces 120 t of ice daily.
SOPAO (Société de pêche de l'Afrique Occidentale)	Cuttlefish, octopus	4.0	Joint venture with Japan.
SOPESEA (Société des Pêcheries Sénégalaises de l'Atlantique)	Shrimp, sole	3.0	Has 6 shrimp vessels, 1 seiner.
SOSAP (Société Sénégalaise d'armement pour la pêche)	Tuna	1/NA	Dissolved in August 1976; was 65 percent government owned; had 25 tuna vessels; delivered tuna to SAPAL, CDS, and SAIB companies.
SPAC-AMERGER (Société des Produits Alimentaires Congelés)	Shrimp, cephalopods	3.0	Has 3 refrigerated trawlers, 7 shrimp vessels, 10 other vessels; has a plant in Ziguinchor.
Surgel	Shrimp, frozen fish	4.5	Freezing capacity of 20 t/day; 150 t storage; buys fish from other companies and artisanal fishermen.

1/Not available.
Source: National Marine Fisheries Service, Branch of International Fisheries Analysis.

Appendix C.--Senegal. Exports by quantity and destination, 1975

Commodity	Destination						
	France	Ivory Coast	Italy	Japan	Spain	Others	Total
	Metric tons						
Sardinella	1/283.1	8,604.7	--	--	--	840.7	9,728.5
Tuna	2/8,332.9		--	--	--	3/234.1	8,567.0
Shrimp	3,839.9	--	58.7	3.2	445.3	74.6	4,421.7
Buttlefish	87.7	--	40.8	1,654.8	51.0	0.3	1,834.6
Sole	853.3	44.5	69.9	--	42.4	72.9	1,083.0
Red mullet	619.8		83.4	--	7.6	0.4	711.2
Shark	39.9	--	188.9	--	--	--	228.8
Octopus	--	--	--	118.9	--	--	118.9
Lobster	69.9	--	--	--	2.9	1.4	74.2
White grouper	46.2	22.0	1.2	--	--	1.0	70.4
Sea bream	20.6	36.7	5.6	--	negligible	0.7	63.7
Ray fins	28.2	0.8	--	--	--	0.5	29.5
Crab	16.4	--	--	--	2.8	0.2	19.4
Other	1,473.4	5,135.9	2,063.6	224.6	160.5	3,517.3	12,575.3
Total4/	15,711.3	13,844.6	2,512.1	2,001.5	712.5	4,744.1	39,526.2

1/Includes 246.6 t of pilchards canned in tomato sauce and oil.
2/French import statistics cited in Pêche Maritime, May 1976, indicate that 9,544 t of tuna were imported in 1975. This discrepancy is unexplained.
3/Includes 223.8 t of tuna shipped to the Federal Republic of Germany and 10.3 t to other African countries.
4/Totals may not add owing to rounding.
Source: Senegal. Direction de l'Oceangraphie et des Pêches Maritimes, Résultats Généraux de la Pêche Maritime Sénégalaise, 1975.

Appendix D.--Catches off the coasts of Senegal, The Gambia, Guinea-Bissau, and Guinea (Conakry); Cape Verde Coastal Division (34.3.1) of the Fishery Committee for the Eastern Central Atlantic (CECAF), by country, 1964-74

Countries	Year										
	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Bermuda	--	--	--	--	--	--	23,958	44,857	54,614	27,878	31,863
Bulgaria1/	--	--	--	--	--	9,258	4,937	568	3,921	2/NA	2/NA
Egypt	--	--	--	--	596	1,681	372	78	3,802	2,567	92
Gambia	5,115	4,125	3,953	5,286	4,753	4,639	4,746	5,039	5,185	9,581	9,995
German Dem. Rep.1/	--	--	--	1,175	4,288	1,109	3,430	834	--	2/NA	2/NA
Ghana	6,400	15,073	5,925	14,759	7,925	25,052	42,030	7,253	10,523	3,469	14,310
Guinea	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Guinea-Bissau	500	900	700	700	1,300	1,400	1,500	1,400	1,700	1,700	2,600
Italy	12,700	14,575	18,381	20,820	24,830	23,920	25,121	32,075	38,010	20,899	23,332
Ivory Coast	--	--	--	--	--	--	--	--	2,742	6,358	6,560
Japan	5,390	12,126	8,733	8,405	4,696	16,084	19,745	14,449	19,081	19,460	25,962
Mauritania	--	--	--	--	--	--	--	--	28	--	--
Norway	--	--	--	--	--	--	31,673	117,587	155,868	135,985	57,502
Poland1/	10,000	16,499	32,231	22,982	6,227	20,312	19,360	10,243	16,568	2/NA	2/NA
Romania1/	--	--	--	--	--	--	1,192	8,043	4,618	2/NA	2/NA
Senegal	90,000	95,869	106,897	115,681	136,943	150,013	159,080	203,287	229,733	286,208	326,248
South Africa	--	--	--	--	--	--	50,000	--	--	--	--
Spain	--	243	351	175	10,384	13,732	6,588	6,005	5,916	--	3,388
Soviet Union1/	2/NA	2/NA	2/NA	2/NA	2/NA	2/NA	2/NA	2/NA	2/NA	2/NA	2/NA
Total	138,223	167.411	185,171	197,983	209,942	275,200	401,732	459,718	560,308	522,105	509,852

1/Bulgaria, the German Democratic Republic, Poland, Romania, and the U.S.S.R. do not always report catch statistics to CECAF.
2/Not Available
Source: CECAF, Statistical Bulletin No. 1, Nominal Catches 1964-1974, Rome, 1976.

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